IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1-12 (canceled)

13. (original) A receiving apparatus for receiving a radio signal, each frame of which includes a series of n (integer equal to or greater than 1) time slots and a frame guard period added to the series of n time slots to suppress a frame loss due to interference, each time slot including an effective symbol period and a guard period added to the effective symbol period, the receiving apparatus comprising:

a front-end reception processing unit for receiving the radio signal;

a synchronization position detector for detecting a starting position of an effective symbol period in the received signal;

a timing generator for controlling an operation timing of a functional block, on the basis of synchronization position information supplied from the synchronization position detector;

a reception windowing unit for extracting only an effective symbol period including no time guard period and no frame guard, under the control of the timing generator; and

a back-end reception processing unit for reproducing desired information from a windowed signal supplied by the reception windowing unit.

14. (original) A receiving apparatus according to Claim 13, wherein the frame guard period is a non-signal period.

15. (original) A receiving apparatus disposed in a communication terminal for receiving a radio signal transmitted from a base station each of which has a capability of communicating, using a signal according to a predetermined modulation scheme, with a communication terminal being within an area assigned to the base station, each frame of the radio signal including a series of n (integer equal to or greater than 1) time slots and a frame guard period added to the series of n time slots to suppress a frame loss due to interference, each time slot including an effective symbol period and a guard period added to the effective symbol period, the receiving apparatus comprising:

a front-end reception processing unit for receiving the radio signal;

a synchronization position detector for detecting a starting position of an effective symbol period in the received signal;

a timing generator for controlling an operation timing of a functional block, on the basis of synchronization position information supplied from the synchronization position detector;

a reception windowing unit for extracting only an effective symbol period including no time guard period and no frame guard, under the control of the timing generator; and

a back-end reception processing unit for reproducing desired information from a windowed signal supplied by the reception windowing unit.

16. (original) A receiving apparatus according to Claim 15, wherein the frame guard period is a non-signal period.

17. (original) A communication system comprising a transmitting apparatus and a receiving apparatus,

the transmitting apparatus comprising:

a front-end transmission processing unit for converting transmission signal into a transmission time slot;

a frame generator for generating a frame including a series of n (integer equal to or greater than 1) time slots and a frame guard period added to the series of n time slots to suppress a frame loss due to interference, each time slot including an effective symbol period and a guard period added to the effective symbol period; and

a back-end transmission processing unit for transmitting the generated frame as a radio signal,

the receiving apparatus comprising:

a front-end reception processing unit for receiving a radio signal transmitted from the transmitting apparatus;

a synchronization position detector for detecting a starting position of an effective symbol period in the received signal;

a timing generator for controlling an operation timing of a functional block, on the basis of synchronization position information supplied from the synchronization position detector;

a reception windowing unit for extracting only an effective symbol period including no time guard period and no frame guard, under the control of the timing generator; and

a back-end reception processing unit for reproducing desired information from a windowed signal supplied by the reception windowing unit.

18. (original) A communication system according to Claim 17, wherein the front-end transmission processing unit includes a modulator for modulating transmission information by means of a proper modulation scheme selected on the basis of electric field strength information received from a communication terminal to which the transmission information is transmitted.

19. (original) A communication system according to Claim 17, wherein the frame guard period is a non-signal period.

20. (original) A communication system comprising:

a plurality of communication terminals; and

a plurality of base stations, each of which has a capability of communicating, using a signal according to a predetermined modulation scheme, with a communication terminal being within an area assigned to the base station,

at least one of the plurality of base stations including a transmitting apparatus, the transmitting apparatus comprising:

a front-end transmission processing unit for converting transmission signal into a transmission time slot;

a frame generator for generating a frame including a series of n (integer equal to or greater than 1) time slots and a frame guard period added to the series of n time slots to

suppress a frame loss due to interference, each time slot including an effective symbol period and a guard period added to the effective symbol period; and

a back-end transmission processing unit for transmitting the generated frame as a radio signal,

each communication terminal including a receiving apparatus comprising:

a front-end reception processing unit for receiving a radio signal transmitted from the transmitting apparatus;

a synchronization position detector for detecting a starting position of an effective symbol period in the received signal;

a timing generator for controlling an operation timing of a functional block, on the basis of synchronization position information supplied from the synchronization position detector;

a reception windowing unit for extracting only an effective symbol period including no time guard period and no frame guard, under the control of the timing generator; and a back-end reception processing unit for reproducing desired information from a windowed signal supplied by the reception windowing unit.

21. (original) A communication system according to Claim 20, wherein the transmitting apparatus further comprises a timing generator for generating a timing signal on the basis of a GPS signal and an inter-base-station control signal for achieving synchronization among base stations, thereby precisely synchronizing the timing of frame transmission among the base stations.

22. (original) A communication system according to Claim 20, wherein the front-end transmission processing unit of the transmitting apparatus includes a modulator for modulating transmission information by means of a proper modulation scheme selected on the basis of electric field strength information received from a communication terminal to which the transmission information is transmitted.

23. (original) A communication system according to Claim 21, wherein the front-end transmission processing unit of the transmitting apparatus includes a modulator for modulating transmission information by means of a proper modulation scheme selected on the basis of electric field strength information received from a communication terminal to which the transmission information is transmitted.

24. (original) A communication system according to Claim 20, wherein the frame guard period is a non-signal period.

25. (original) A communication system according to Claim 21, wherein the frame guard period is a non-signal period.